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ISO/IEC/IEEE 8802-1Q

Telecommunications and exchange between information technology systems — Requirements for local and metropolitan area networks —

Part 1Q: Bridges and bridged networks

AMENDMENT 36: YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing

Télécommunications et échange entre systèmes informatiques — Exigences pour les réseaux locaux et métropolitains —

Partie 1Q: Ponts et réseaux pontés

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IEEE Standard for
Local and Metropolitan Area Networks—

Bridges and Bridged Networks

Amendment 36: YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing

(This amendment is based on IEEE Std 802.1Q™-2022 as amended by IEEE Std 802.1Qcz-2023.)

NOTE—The editing instructions contained in this amendment define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.

The editing instructions are shown in ***bold italics***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Deletions and insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this note will not be carried over into future editions because the changes will be incorporated into the base standard. [6]

[6] Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

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1. Overview

1.3 Introduction

Insert new list item cs) after item cr) in 1.3 and renumber the subsequent list items accordingly:

cs) Define YANG configuration and operational state models (Clause 48) in support of scheduled traffic, frame preemption, and Per-Stream Filtering and Policing.

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12. Bridge management

12.29 Managed objects for scheduled traffic

12.29.1 The Gate Parameter Table

Insert two new rows at the end of Table 12-32 as follows (unchanged rows not shown):

Table 12-32—The Gate Parameter Table

Name	Data type	Operations supported[a]	Conformance[b]	References
SupportedCycleMax	RationalNumber (seconds)	R	B, E	8.6.8.4, 12.29.1.3, 12.29.1.6
SupportedIntervalMax	Integer	R	B, E	8.6.8.4, 12.29.1.7

[a] R= Read only access; RW = Read/Write access.

[b] B = Required for Bridge or Bridge component support of enhancements for scheduled traffic; E = Required for end station support of enhancements for scheduled traffic.

12.29.1.2 The gate control list structure and data types

12.29.1.2.1 GateControlEntry

Change 12.29.1.2.1 as follows:

A GateControlEntry consists of an operation name, followed by ~~up to~~ 2 parameters associated with the operation, as detailed in Table 8-7. The first parameter~~, if present,~~ is a gateStatesValue (12.29.1.2.2); the second parameter~~, if present,~~ is a timeIntervalValue (12.29.1.2.3).

Insert 12.29.1.6 and 12.29.1.7 after 12.29.1.5 as follows:

12.29.1.6 SupportedCycleMax

The maximum value supported by this Port of the AdminCycleTime (8.6.9.4.3) and OperCycleTime (8.6.9.4.19) parameters.

12.29.1.7 SupportedIntervalMax

The maximum value supported by this Port of the timeIntervalValue (12.29.1.2.3) parameter.

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12.31 Managed objects for per-stream classification and metering

12.31.1 The Stream Parameter Table

Insert two new rows at the end of Table 12-34 as follows (unchanged rows not shown):

Table 12-34—The Stream Parameter Table

Name	Data type	Operations supported[a]	Conformance[b]	References
SupportedCycleMax	RationalNumber (seconds)	R	PSFP, ATS	8.6.5.4, 12.29.1.3, 12.29.1.6
SupportedIntervalMax	Integer	R	PSFP, ATS	8.6.5.4, 12.29.1.7

[a] R= Read only access; RW = Read/Write access.
[b] PSFP = Required for Bridge, Bridge component, or end station support of PSFP.
psfp = Optional for Bridge, Bridge component, or end station support of PSFP.
ATS = Required for Bridge or Bridge component support of ATS.
ats = Optional for Bridge or Bridge component support of ATS.
CI = Required for Bridge or Bridge component support of CI.

Insert 12.31.1.7 and 12.31.1.8 after 12.31.1.6 as follows:

12.31.1.7 SupportedCycleMax

The maximum value supported by this Port of the AdminCycleTime (8.6.9.4.3) and OperCycleTime (8.6.9.4.19) parameters.

12.31.1.8 SupportedIntervalMax

The maximum value supported by this Bridge component of the timeIntervalValue (12.31.3.2.4) parameter.

12.31.3 The Stream Gate Instance Table

12.31.3.2 The gate control list structure and data types

12.31.3.2.2 StreamGateControlEntry

Change 12.31.3.2.2 as follows:

A StreamGateControlEntry consists of an operation name, followed by three mandatory parameters and one optional parameter associated with the operation, as detailed in Table 8-4. The first parameter is a StreamGateStatesValue (8.6.10.5, 12.31.3.2.1); the second parameter is an IPV value (8.6.10.7, 12.31.3.2.3)~~,~~ ~~and~~; the third parameter is a timeIntervalValue (8.6.9.4.23, 12.31.3.2.4); and the fourth parameter is an IntervalOctetMaxValue (8.6.10.1, 12.31.3.2.5). IntervalOctetMaxValue is optional.

Insert 12.31.3.2.5 after 12.31.3.2.4 as follows:

12.31.3.2.5 IntervalOctetMaxValue

An unsigned integer, denoting an IntervalOctetMax in MSDU octets (see IntervalOctetMax in Table 8-4).

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17. Management Information Base (MIB)

17.2 Structure of the MIB

17.2.22 Structure of the IEEE8021-ST-MIB

Insert three new rows at the end of Table 17-28 as follows (unchanged rows not shown):

Table 17-28—IEEE8021-ST-MIB structure

IEEE8021-ST-MIB table/object	Reference
ieee8021STSupportedCycleMaxNumerator	SupportedCycleMax, 12.29.1.6
ieee8021STSupportedCycleMaxDenominator	SupportedCycleMax, 12.29.1.6
ieee8021STSupportedIntervalMax	SupportedIntervalMax, 12.29.1.7

17.2.24 Structure of the IEEE8021-PSFP-MIB

Insert three new rows at the end of Table 17-30 as follows (unchanged rows not shown):

Table 17-30—IEEE8021-PSFP-MIB structure

IEEE8021-PSFP-MIB table/object	Reference
ieee8021PSFPSupportedCycleMaxNumerator	SupportedCycleMax, 12.31.1.7
ieee8021PSFPSupportedCycleMaxDenominator	SupportedCycleMax, 12.31.1.7
ieee8021PSFPSupportedIntervalMax	SupportedIntervalMax, 12.31.1.8

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17.7 MIB modules[7] [8]

17.7.14 Definitions for the IEEE8021-SRP-MIB module

Change 17.7.14 as follows:

```
IEEE8021-SRP-MIB DEFINITIONS ::= BEGIN

-- ================================================================
-- MIB for support of IEEE 802.1Qat Stream Reservation Protocol
-- (SRP) in IEEE 802.1Q Bridges.
-- ================================================================

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Counter64,
    Unsigned32
        FROM SNMPv2-SMI
    MacAddress,
    TEXTUAL-CONVENTION,
    TruthValue
        FROM SNMPv2-TC
    MODULE-COMPLIANCE,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    ieee802dot1mibs,
    IEEE8021PriorityCodePoint,
    IEEE8021VlanIndex
        FROM IEEE8021-TC-MIB
    IEEE8021FqtssTrafficClassValue
        FROM IEEE8021-FQTSS-MIB
    ieee8021BridgeBaseComponentId,
    ieee8021BridgeBaseEntry,
    ieee8021BridgeBasePort,
    ieee8021BridgeBasePortEntry
        FROM IEEE8021-BRIDGE-MIB

    ;

ieee8021SrpMib MODULE-IDENTITY
    LAST-UPDATED "202211080000Z" -- November 8, 2022"202309260000Z" -- September 26, 2023
    ORGANIZATION "IEEE 802.1 Working Group"
    CONTACT-INFO
        "  WG-URL: http://www.ieee802.org/1/
         WG-EMail: stds-802-1-l@ieee.org
          Contact: IEEE 802.1 Working Group Chair
           Postal: C/O IEEE 802.1 Working Group
                   IEEE Standards Association
                   445 Hoes Lane
                   Piscataway, NJ 08854
                   USA
          E-mail: stds-802-1-chairs@ieee.org"
    DESCRIPTION
        "The Bridge MIB module for managing devices that support
        the IEEE Std 802.1Q Stream Reservation Protocol.

        Unless otherwise indicated, the references in this MIB
        module are to IEEE Std 802.1Q-2022.

        Copyright (C) IEEE (20222023).
        This version of this MIB module is part of IEEE Std 802.1Q;
        see that standard for full legal notices."
```

[7] *Copyright release for MIBs:* Users of this standard may freely reproduce the MIB modules in this standard so that they can be used for their intended purpose.

[8] An ASCII version of this MIB module is attached to the PDF version of this standard, and can be obtained by Web browser from the IEEE 802.1 Website at https://1.ieee802.org/mib-modules/.

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```
    REVISION "202309260000Z" -- September 26, 2023
    DESCRIPTION
            "Published as part of IEEE 802.1Qcw.
            Changed the applicable SYNTAX of object definitions
              ieee8021SrpStreamDataFramePriority, and
              ieee8021SrpStreamPreloadDataFramePriority
            from IEEE8021PriorityCodePoint to INTEGER
            to correct an error identifying PCP encoding SYNTAX
            instead of PCP values as intended."

    REVISION "202211080000Z" -- November 8, 2022
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2022.
            Cross references and contact information updated."

    REVISION "201810040000Z" -- October 4, 2018
    DESCRIPTION
            "Published as part of IEEE 802.1Qcc-2018.
                      Added managed objects for Stream Reservation
                      Protocol (SRP) Enhancements and Performance
                      Improvements"

    REVISION "201806280000Z" -- June 28, 2018
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q 2018.
            Cross references updated. "

    REVISION "201512020000Z" -- December 2, 2015
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2014 Cor-1.
            ieee8021SrpReservationFailureBridgeId changed to
            ieee8021SrpReservationFailureSystemId."

    REVISION "201412150000Z" -- December 15, 2014
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q 2014 revision.
            Cross references updated and corrected."

    REVISION     "201102270000Z" -- February 27, 2011
    DESCRIPTION
         "Minor edits to contact information etc. as part of
          2011 revision of Std 802.1Q."

    REVISION     "201004190000Z" -- April 19, 2010
    DESCRIPTION
         "Initial revision, included in IEEE 802.1Qat"
    ::= { ieee802dot1mibs 19 }

-- ================================================================
-- Textual Conventions
-- ================================================================

IEEE8021SrpStreamRankValue ::= TEXTUAL-CONVENTION
    STATUS       current
    DESCRIPTION
        "An 802.1 SRP Stream Rank value. This is an integer,
         with the following interpretation placed on the value:

         0: Emergency, high-rank stream,
         1: Non-emergency stream."
    REFERENCE    "35.2.2.8.5b"
    SYNTAX       INTEGER {
                     emergency(0),
                     nonEmergency(1)
                 }


IEEE8021SrpStreamIdValue ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "1x:1x:1x:1x:1x:1x.1x:1x"
    STATUS       current
    DESCRIPTION
```


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```
            "Represents an SRP Stream ID, which is often defined
            as a MAC Address followed by a unique 16-bit ID."
    SYNTAX       OCTET STRING (SIZE (8))

IEEE8021SrpReservationDirectionValue ::= TEXTUAL-CONVENTION
    STATUS       current
    DESCRIPTION
        "An 802.1 SRP Stream Reservation Direction value. This is
         an integer, with the following interpretation placed on
         the value:

         0: Talker registrations,
         1: Listener registrations."
    REFERENCE    "35.2.1.2"
    SYNTAX       INTEGER {
                     talkerRegistrations(0),
                     listenerRegistrations(1)
                 }


IEEE8021SrpReservationDeclarationTypeValue ::= TEXTUAL-CONVENTION
    STATUS       current
    DESCRIPTION
        "An 802.1 SRP Stream Reservation Declaration Type value.
         This is an integer, with the following interpretation
         placed on the value:

         0: Talker Advertise,
         1: Talker Failed,
         2: Listener Asking Failed,
         3: Listener Ready,
         4: Listener Ready Failed."
    REFERENCE    "35.2.1.3"
    SYNTAX       INTEGER {
                     talkerAdvertise(0),
                     talkerFailed(1),
                     listenerAskingFailed(2),
                     listenerReady(3),
                     listenerReadyFailed(4)
                 }


IEEE8021SrpReservationFailureCodeValue ::= TEXTUAL-CONVENTION
    STATUS       current
    DESCRIPTION
        "An 802.1 SRP Stream Reservation Failure Code value.
         This is an integer, with the following interpretation
         placed on the value:

         0: No failure,
         1: Insufficient bandwidth,
         2: Insufficient Bridge resources,
         3: Insufficient bandwidth for Traffic Class,
         4: StreamID in use by another Talker,
         5: Stream destination address already in use,
         6: Stream pre-empted by higher rank,
         7: Reported latency has changed,
         8: Egress port is not AVBCapable,
         9: Use a different destination_address,
         10: Out of MSRP resources,
         11: Out of MMRP resources,
         12: Cannot store destination_address,
         13: Requested priority is not an SR Class priority,
         14: MaxFrameSize is too large for media,
         15: maxFanInPorts limit has been reached,
         16: Changes in FirstValue for a registered StreamID,
         17: VLAN is blocked on this egress port (Registration Forbidden),
         18: VLAN tagging is disabled on this egress port (untagged set),
         19: SR class priority mismatch."
    REFERENCE    "35.2.2.8.7"
    SYNTAX       INTEGER {
                    noFailure(0),
```


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```
                    insufficientBandwidth(1),
                    insufficientResources(2),
                    insufficientTrafficClassBandwidth(3),
                    streamIDInUse(4),
                    streamDestinationAddressInUse(5),
                    streamPreemptedByHigherRank(6),
                    latencyHasChanged(7),
                    egressPortNotAVBCapable(8),
                    useDifferentDestinationAddress(9),
                    outOfMSRPResources(10),
                    outOfMMRPResources(11),
                    cannotStoreDestinationAddress(12),
                    priorityIsNoAnSRCLass(13),
                    maxFrameSizeTooLarge(14),
                    maxFanInPortsLimitReached(15),
                    firstValueChangedForStreamID(16),
                    vlanBlockedOnEgress(17),
                    vlanTaggingDisabledOnEgress(18),
                    srClassPriorityMismatch(19)
                }


-- ================================================================
-- subtrees in the SRP MIB
-- ================================================================

ieee8021SrpNotifications
    OBJECT IDENTIFIER ::= { ieee8021SrpMib 0 }

ieee8021SrpObjects
    OBJECT IDENTIFIER ::= { ieee8021SrpMib 1 }

ieee8021SrpConformance
    OBJECT IDENTIFIER ::= { ieee8021SrpMib 2 }

ieee8021SrpConfiguration
    OBJECT IDENTIFIER ::= { ieee8021SrpObjects 1 }

ieee8021SrpLatency
    OBJECT IDENTIFIER ::= { ieee8021SrpObjects 2 }

ieee8021SrpStreams
    OBJECT IDENTIFIER ::= { ieee8021SrpObjects 3 }

ieee8021SrpReservations
    OBJECT IDENTIFIER ::= { ieee8021SrpObjects 4 }


-- ================================================================
-- The ieee8021SrpConfiguration subtree
-- This subtree defines the objects necessary for the
-- operational management of SRP.
-- ================================================================

ieee8021SrpBridgeBaseTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021SrpBridgeBaseEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table for SRP main control and status information.
        All writable objects in this table must be persistent
        over power up restart/reboot.  These objects augment
        the ieee8021BridgeBasePortTable."
    ::= { ieee8021SrpConfiguration 1 }

ieee8021SrpBridgeBaseEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpBridgeBaseEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "SRP control and status information for a Bridge."
    AUGMENTS { ieee8021BridgeBaseEntry }
```


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```
    ::= { ieee8021SrpBridgeBaseTable 1 }

Ieee8021SrpBridgeBaseEntry ::=
    SEQUENCE {
         ieee8021SrpBridgeBaseMsrpEnabledStatus
            TruthValue,
         ieee8021SrpBridgeBaseMsrpTalkerPruning
            TruthValue,
         ieee8021SrpBridgeBaseMsrpMaxFanInPorts
            Unsigned32,
         ieee8021SrpBridgeBaseMsrpLatencyMaxFrameSize
            Unsigned32,
         ieee8021SrpBridgeBaseMsrpTalkerVlanPruning
            TruthValue,
         ieee8021SrpBridgeBaseMsrpMaxSRClasses
            Unsigned32
    }

ieee8021SrpBridgeBaseMsrpEnabledStatus OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The administrative status requested by management for
        MSRP.  The value true(1) indicates that MSRP should
        be enabled on this device, in all VLANs, on all ports
        for which it has not been specifically disabled.  When
        false(2), MSRP is disabled, in all VLANs and on all
        ports, and all MSRP frames will be forwarded
        transparently.  This objects affects both Applicant and
        Registrar state machines.  A transition from false(2)
        to true(1) will cause a reset of all MSRP state
        machines on all ports.

        This object may be modified while the corresponding
        instance of ieee8021BridgeBaseRowStatus is active(1).

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "35.2.1.4d"
    DEFVAL      { true }
    ::= { ieee8021SrpBridgeBaseEntry 1 }

ieee8021SrpBridgeBaseMsrpTalkerPruning OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The value of the talkerPruning parameter, which
        controls the propagation of Talker declarations.
        The value true(1) indicates that Talker attributes
        are only declared on ports that have the Stream
        destination_address registered in the MMRP MAC
        Address Registration Entries.  When false(2),
        Talker attribute are declared on all egress ports
        in the active topology.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "12.22.1, 35.2.1.4b, 35.2.4.3.1"
    DEFVAL      { false }
    ::= { ieee8021SrpBridgeBaseEntry 2 }

ieee8021SrpBridgeBaseMsrpMaxFanInPorts OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The value of the msrpMaxFanInPorts parameter, which
        limits the total number of ports on a Bridge that
        are allowed to establish reservations for inbound
        Streams.  A value of zero (0) indicates no fan-in
```


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```
        limit is being specified and calculations involving
        fan-in will only be limited by the number of MSRP
        enabled ports.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "12.22.1, 35.2.1.4f"
    DEFVAL      { 0 }
    ::= { ieee8021SrpBridgeBaseEntry 3 }

ieee8021SrpBridgeBaseMsrpLatencyMaxFrameSize OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The value of msrpLatencyMaxFrameSize parameter
        which is used in the calculation of the maximum
        latency through a Bridge.  The maximum size is
        defined to be 2000 octets by default, but may be
        set to a smaller or larger value dependent on the
        particular Bridge configuration. This parameter
        does not imply any type of policing of frame size,
        it is only used in the latency calculations.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "12.22.1, 35.2.1.4g"
    DEFVAL      { 2000 }
    ::= { ieee8021SrpBridgeBaseEntry 4 }

ieee8021SrpBridgeBaseMsrpTalkerVlanPruning OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "This parameter allows to limit the Talker declaration
        to ports, that have the Stream's VLAN identifier
        registered as a member in the VLAN Registration
        Entries. The value true(1) indicates that Talker
        declarations are only sent out on ports, that have the
        Stream's VLAN identifier registered as a member in the
        VLAN Registration Entries. When false(2), Talker
        declarations are propagated according to the VLAN
        spanning tree."
    REFERENCE   "12.22.1, 35.2.1.4l"
    DEFVAL      { false }
    ::= { ieee8021SrpBridgeBaseEntry 5 }

ieee8021SrpBridgeBaseMsrpMaxSRClasses OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute provides the maximum number of SR classes
        supported by the Bridge."
    REFERENCE   "12.22.1, 35.2.1.4m"
    ::= { ieee8021SrpBridgeBaseEntry 6 }


ieee8021SrpBridgePortTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021SrpBridgePortEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table for SRP control and status information about
        every Bridge Port.  Augments the ieee8021BridgeBasePortTable."
    ::= { ieee8021SrpConfiguration 2 }

ieee8021SrpBridgePortEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpBridgePortEntry
    MAX-ACCESS  not-accessible
    STATUS      current
```


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```
    DESCRIPTION
        "SRP control and status information for a Bridge Port."
    AUGMENTS { ieee8021BridgeBasePortEntry }
    ::= { ieee8021SrpBridgePortTable 1 }

Ieee8021SrpBridgePortEntry ::=
    SEQUENCE {
        ieee8021SrpBridgePortMsrpEnabledStatus
            TruthValue,
        ieee8021SrpBridgePortMsrpFailedRegistrations
            Counter64,
        ieee8021SrpBridgePortMsrpLastPduOrigin
            MacAddress,
        ieee8021SrpBridgePortSrPvid
            IEEE8021VlanIndex,
        ieee8021SrpBridgePortMsrpTalkerPrunningPerPort
        TruthValue
    }

ieee8021SrpBridgePortMsrpEnabledStatus OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The administrative state of MSRP operation on this port.  The
        value true(1) indicates that MSRP is enabled on this port
        in all VLANs as long as ieee8021BridgeMsrpEnabledStatus is
        also true(1).  A value of false(2) indicates that MSRP is
        disabled on this port in all VLANs: any MSRP frames received
        will be silently discarded, and no MSRP registrations will be
        propagated from other ports.  Setting this to a value of
        true(1) will be stored by the agent but will only take
        effect on the MSRP protocol operation if
        ieee8021BridgeMsrpEnabledStatus
        also indicates the value true(1).  This object affects
        all MSRP Applicant and Registrar state machines on this
        port.  A transition from false(2) to true(1) will
        cause a reset of all MSRP state machines on this port.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "35.2.1.4e"
    DEFVAL      { true }
    ::= { ieee8021SrpBridgePortEntry 1 }

ieee8021SrpBridgePortMsrpFailedRegistrations OBJECT-TYPE
    SYNTAX      Counter64
    UNITS       "failed MSRP registrations"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The total number of failed MSRP registrations, for any
        reason, in all VLANs, on this port.

        Discontinuities in the value of the counter can occur at
        re-initialization of the management system, and at other
        times as indicated by the value of ifCounterDiscontinuityTime
        object of the associated interface (if any)."
    REFERENCE   "10.7.12.1"
    ::= { ieee8021SrpBridgePortEntry 2 }

ieee8021SrpBridgePortMsrpLastPduOrigin OBJECT-TYPE
    SYNTAX      MacAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Source MAC Address of the last MSRP message
        received on this port."
    REFERENCE   "10.7.12.2"
    ::= { ieee8021SrpBridgePortEntry 3 }

ieee8021SrpBridgePortSrPvid OBJECT-TYPE
```


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```
    SYNTAX      IEEE8021VlanIndex
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The default VLAN ID that Streams are assigned to.
        Talkers learn this VID from the SRP Domain attribute
        and tag Streams accordingly.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "35.2.2.8.3b"
    DEFVAL      { 2 }
    ::= { ieee8021SrpBridgePortEntry 4}

ieee8021SrpBridgePortMsrpTalkerPrunningPerPort OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "This parameter controls the forwarding behavior for
        Talker declarations on the port when the TalkerPruning
        parameter is disabled for the bridge. The value true(1)
        indicates, that Talker declarations are only forwarded
        on that port, if the destination_address of the Stream
        is found in the MAC Address Registration Entries for the
        port. When false(2), Talker declarations are forwarded
        on that port regardless of the destination address."
    REFERENCE   "12.22.2, 35.2.1.4k"
    DEFVAL      { false }
    ::= { ieee8021SrpBridgePortEntry 5 }

-- ================================================================
-- The ieee8021SrpLatency subtree
-- This subtree defines the objects necessary for retrieving
-- the latency of the various traffic classes on a port.
-- ================================================================

-- ================================================================
-- the ieee8021SrpLatencyTable
-- ================================================================
ieee8021SrpLatencyTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021SrpLatencyEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing a set of latency measurement
        parameters for each traffic class."
    REFERENCE   "35.2.2.8.6"
    ::= { ieee8021SrpLatency 1 }

ieee8021SrpLatencyEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpLatencyEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects containing latency information
        for each traffic class. Rows in the table are
        automatically created for ports that are not an
        SRP domain boundary port (i.e., SRPdomainBoundaryPort
        is FALSE). See 35.1.4, 8.8.2, 12.22.3."
    INDEX  { ieee8021BridgeBaseComponentId,
             ieee8021BridgeBasePort,
             ieee8021SrpTrafficClass  }
    ::= { ieee8021SrpLatencyTable 1 }

Ieee8021SrpLatencyEntry ::=
    SEQUENCE {
        ieee8021SrpTrafficClass
            IEEE8021FqtssTrafficClassValue,
        ieee8021SrpPortTcLatency
            Unsigned32
        }
```


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```
ieee8021SrpTrafficClass OBJECT-TYPE
    SYNTAX      IEEE8021FqtssTrafficClassValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The traffic class number associated with the
        row of the table.

        Rows in the table are automatically created for
        ports that are not an SRP domain boundary port
        (i.e., SRPdomainBoundaryPort is FALSE)."
    REFERENCE   "35.1.4, 8.8.2, 12.22.3"
    ::= { ieee8021SrpLatencyEntry 1 }


ieee8021SrpPortTcLatency OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "nano-seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of the portTcMaxLatency parameter for the
        traffic class.  This value is expressed in
        nano-seconds."
    REFERENCE   "35.2.1.4, 35.2.2.8.6"
    ::= { ieee8021SrpLatencyEntry 2 }


-- ================================================================
-- The ieee8021SrpStreams subtree
-- This subtree defines the objects necessary for retrieving
-- the characteristics of the various Streams currently registered.
-- ================================================================

-- ================================================================
-- the ieee8021SrpStreamTable
-- ================================================================
ieee8021SrpStreamTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021SrpStreamEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing a set of characteristics
        for each registered Stream."
    REFERENCE   "35.2.2.8"
    ::= { ieee8021SrpStreams 1 }

ieee8021SrpStreamEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpStreamEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects containing characteristics
        for each registered Stream. Rows in the table are
        automatically created for Streams registered on any
        port of a Bridge."
    INDEX  { ieee8021SrpStreamId }
    ::= { ieee8021SrpStreamTable 1 }

Ieee8021SrpStreamEntry ::=
    SEQUENCE {
        ieee8021SrpStreamId
            IEEE8021SrpStreamIdValue,
        ieee8021SrpStreamDestinationAddress
            MacAddress,
        ieee8021SrpStreamVlanId
            IEEE8021VlanIndex,
        ieee8021SrpStreamTspecMaxFrameSize
            Unsigned32,
        ieee8021SrpStreamTspecMaxIntervalFrames
            Unsigned32,
```


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```
        ieee8021SrpStreamDataFramePriority
            INTEGERIEEE8021PriorityCodePoint,
        ieee8021SrpStreamRank
            IEEE8021SrpStreamRankValue
        }

ieee8021SrpStreamId OBJECT-TYPE
    SYNTAX      IEEE8021SrpStreamIdValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The Stream ID associated with the row of the table.

        Rows in the table are automatically created when
        Streams are registered via MSRP."
    REFERENCE   "35.2.2.8.2"
    ::= { ieee8021SrpStreamEntry 1 }

ieee8021SrpStreamDestinationAddress OBJECT-TYPE
    SYNTAX      MacAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The MAC destination address for the Stream described
        by this reservation."
    REFERENCE   "35.2.2.8.3a"
    ::= { ieee8021SrpStreamEntry 2}

ieee8021SrpStreamVlanId OBJECT-TYPE
    SYNTAX      IEEE8021VlanIndex
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The VLAN ID associated with the MSRP registration
        for this Stream."
    REFERENCE   "35.2.2.8.3b"
    ::= { ieee8021SrpStreamEntry 3}

ieee8021SrpStreamTspecMaxFrameSize OBJECT-TYPE
    SYNTAX      Unsigned32 (0..65535)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The maximum size frame that will be sent by
        a Talker for this Stream. This value is part
        of the Traffic Specification for the Stream."
    REFERENCE   "35.2.2.8.4a"
    ::= { ieee8021SrpStreamEntry 4}

ieee8021SrpStreamTspecMaxIntervalFrames OBJECT-TYPE
    SYNTAX      Unsigned32 (0..65535)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The maximum number of frame that will be sent
        during a class measurement interval (L.2).  This
        value is part of the Traffic Specification for
        the Stream."
    REFERENCE   "35.2.2.8.4b, L.2"
    ::= { ieee8021SrpStreamEntry 5}

ieee8021SrpStreamDataFramePriority OBJECT-TYPE
    SYNTAX      INTEGER (0..7)IEEE8021PriorityCodePoint
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Priority Code Point (PCP) value that the
        referenced Stream will be tagged with. This value
        is used to distinguish Class A and Class B traffic."
    REFERENCE   "35.2.2.8.5a"
    ::= { ieee8021SrpStreamEntry 6}
```


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```
ieee8021SrpStreamRank OBJECT-TYPE
    SYNTAX      IEEE8021SrpStreamRankValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "SRP supports emergency and non-emergency.
        Emergency traffic will interrupt non-emergency
        traffic if there is insufficient bandwidth or
        resources available for the emergency traffic."
    REFERENCE   "35.2.2.8.5b"
    ::= { ieee8021SrpStreamEntry 7}


    -- ============================================================
    -- the ieee8021SrpStreamPreloadTable
    -- ============================================================
    ieee8021SrpStreamPreloadTable OBJECT-TYPE
        SYNTAX      SEQUENCE OF Ieee8021SrpStreamPreloadEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "A table containing a set of parameters for each StreamID
            that is preloaded on the Bridge as it initializes."
        REFERENCE   "12.22.6"
        ::= { ieee8021SrpStreams 2 }

    ieee8021SrpStreamPreloadEntry OBJECT-TYPE
        SYNTAX      Ieee8021SrpStreamPreloadEntry
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "A list of objects containing characteristics
            for each registered Stream. Rows in the table are
            automatically created for Streams registered on any
            port of a Bridge."
        INDEX  { ieee8021SrpStreamPreloadId }
        ::= { ieee8021SrpStreamPreloadTable 1 }

    Ieee8021SrpStreamPreloadEntry ::=
        SEQUENCE {
            ieee8021SrpStreamPreloadId
                IEEE8021SrpStreamIdValue,
            ieee8021SrpStreamPreloadDestinationAddress
                MacAddress,
            ieee8021SrpStreamPreloadVlanId
                IEEE8021VlanIndex,
            ieee8021SrpStreamPreloadTspecMaxFrameSize
                Unsigned32,
            ieee8021SrpStreamPreloadTspecMaxIntervalFrames
                Unsigned32,
            ieee8021SrpStreamPreloadDataFramePriority
                INTEGERIEEE8021PriorityCodePoint,
            ieee8021SrpStreamPreloadRank
                IEEE8021SrpStreamRankValue
            }

    ieee8021SrpStreamPreloadId OBJECT-TYPE
        SYNTAX      IEEE8021SrpStreamIdValue
        MAX-ACCESS  not-accessible
        STATUS      current
        DESCRIPTION
            "The 64-bit StreamID is used to match Talker
            registrations with their corresponding Listener
            registrations(35.2.4)."
        REFERENCE   "12.22.6, 35.2.2.8.2"
        ::= { ieee8021SrpStreamPreloadEntry 1 }

    ieee8021SrpStreamPreloadDestinationAddress OBJECT-TYPE
        SYNTAX      MacAddress
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
```


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```
            "The MAC destination address for the Stream described
            by this reservation."
        REFERENCE   "12.22.6, 35.2.2.8.3a"
        ::= { ieee8021SrpStreamPreloadEntry 2}

    ieee8021SrpStreamPreloadVlanId OBJECT-TYPE
        SYNTAX      IEEE8021VlanIndex
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The VLAN ID associated with the MSRP registration
            for this Stream."
        REFERENCE   "12.22.6, 35.2.2.8.3b"
        ::= { ieee8021SrpStreamPreloadEntry 3}

    ieee8021SrpStreamPreloadTspecMaxFrameSize OBJECT-TYPE
        SYNTAX      Unsigned32 (0..65535)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The maximum size frame that will be sent by
            a Talker for this Stream. This value is part
            of the Traffic Specification for the Stream."
        REFERENCE   "12.22.6, 35.2.2.8.4a"
        ::= { ieee8021SrpStreamPreloadEntry 4}

    ieee8021SrpStreamPreloadTspecMaxIntervalFrames OBJECT-TYPE
        SYNTAX      Unsigned32 (0..65535)
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The maximum number of frames that the Talker may
            transmit in one classMeasurementInterval (34.3).
            This value is part of the Traffic Specification
            for the Stream."
        REFERENCE   "12.22.6, 35.2.2.8.4b"
        ::= { ieee8021SrpStreamPreloadEntry 5}

    ieee8021SrpStreamPreloadDataFramePriority OBJECT-TYPE
        SYNTAX      INTEGER (0..7)~~IEEE8021PriorityCodePoint~~
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The Priority Code Point (PCP) value that the
            referenced Stream will be tagged with. This value
            is used to distinguish Class A and Class B traffic."
        REFERENCE   "12.22.6, 35.2.2.8.5a"
        ::= { ieee8021SrpStreamPreloadEntry 6}

    ieee8021SrpStreamPreloadRank OBJECT-TYPE
        SYNTAX      IEEE8021SrpStreamRankValue
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "SRP supports emergency and non-emergency.
            Emergency traffic will interrupt non-emergency
            traffic if there is insufficient bandwidth or
            resources available for the emergency traffic."
        REFERENCE   "12.22.6, 35.2.2.8.5b"
        ::= { ieee8021SrpStreamPreloadEntry 7}


-- ================================================================
-- The ieee8021SrpReservations subtree
-- This subtree defines the objects necessary for retrieving
-- the Stream attribute registrations on each port of a Bridge.
-- ================================================================

-- ================================================================
-- the ieee8021SrpReservationsTable
-- ================================================================
ieee8021SrpReservationsTable OBJECT-TYPE
```


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```
    SYNTAX      SEQUENCE OF Ieee8021SrpReservationsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing Stream attribute
        registrations per port."
    REFERENCE   "35.2.4"
    ::= { ieee8021SrpReservations 1 }

ieee8021SrpReservationsEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpReservationsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects containing Stream attribute
        registrations per port. Rows in the table are
        automatically created for Streams registered on any
        port of a Bridge."
    INDEX  { ieee8021SrpReservationStreamId,
             ieee8021SrpReservationDirection,
             ieee8021BridgeBaseComponentId,
             ieee8021BridgeBasePort }
    ::= { ieee8021SrpReservationsTable 1 }

Ieee8021SrpReservationsEntry ::=
    SEQUENCE {
        ieee8021SrpReservationStreamId
            IEEE8021SrpStreamIdValue,
        ieee8021SrpReservationDirection
            IEEE8021SrpReservationDirectionValue,
        ieee8021SrpReservationDeclarationType
            IEEE8021SrpReservationDeclarationTypeValue,
        ieee8021SrpReservationAccumulatedLatency
            Unsigned32,
        ieee8021SrpReservationFailureSystemId
            OCTET STRING,
        ieee8021SrpReservationFailureCode
            IEEE8021SrpReservationFailureCodeValue,
        ieee8021SrpReservationDroppedStreamFrames
            Counter64,
        ieee8021SrpReservationStreamAge
            Unsigned32
        }

ieee8021SrpReservationStreamId OBJECT-TYPE
    SYNTAX      IEEE8021SrpStreamIdValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The Stream ID associated with the row of the table.

        Rows in the table are automatically created when
        Streams are registered via MSRP."
    REFERENCE   "35.2.2.8.2"
    ::= { ieee8021SrpReservationsEntry 1 }

ieee8021SrpReservationDirection OBJECT-TYPE
    SYNTAX      IEEE8021SrpReservationDirectionValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The source of this Stream registration, either
        Talker or Listener."
    REFERENCE   "35.2.1.2"
    ::= { ieee8021SrpReservationsEntry 2 }

ieee8021SrpReservationDeclarationType OBJECT-TYPE
    SYNTAX      IEEE8021SrpReservationDeclarationTypeValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The type of Talker or Listener registration."
```


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```
    REFERENCE   "35.2.1.3"
    ::= { ieee8021SrpReservationsEntry 3 }

ieee8021SrpReservationAccumulatedLatency OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "nano-seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The Accumulated Latency associated with the current
        registration.

        For Talker registrations this represents the accumulated
        latency from the Talker to the ingress port of this
        Bridge.

        For Listener registrations this represents the accumulated
        latency to the ingress port of the neighbor Bridge or
        end stations. This include the latency of the media
        attached to this egress port."
    REFERENCE   "35.2.2.8.6"
    ::= { ieee8021SrpReservationsEntry 4 }

ieee8021SrpReservationFailureSystemId OBJECT-TYPE
    SYNTAX      OCTET STRING(SIZE(8))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The first system that changes a Talker Advertise to a
        Talker Failed registration will report its System
        Identification in this field. That single System
        Identification is then propagated from system to system."
    REFERENCE   "35.2.2.8.7a"
    ::= { ieee8021SrpReservationsEntry 5 }

ieee8021SrpReservationFailureCode OBJECT-TYPE
    SYNTAX      IEEE8021SrpReservationFailureCodeValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The first Bridge that changes a Talker Advertise to a
        Talker Failed registration will report the Failure Code
        in this field. That single Failure Code is then propagated
        from Bridge to Bridge."
    REFERENCE   "35.2.2.8.7b"
    ::= { ieee8021SrpReservationsEntry 6 }

ieee8021SrpReservationDroppedStreamFrames OBJECT-TYPE
    SYNTAX      Counter64
    UNITS       "frames"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A count of the number of data stream frames that have
        been dropped for whatever reason.  These are not MSRP
        frames, but the stream data frames that are carried by
        the MSRP Reservation.

        Discontinuities in the value of the counter can occur at
        re-initialization of the management system, and at other
        times as indicated by the value of ifCounterDiscontinuityTime
        object of the associated interface (if any)."
     REFERENCE   "35.2.5.1"
    ::= { ieee8021SrpReservationsEntry 7 }

ieee8021SrpReservationStreamAge OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of seconds since the reservation was established
```


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```
        on this port."
    REFERENCE   "35.2.1.4c"
    ::= { ieee8021SrpReservationsEntry 8 }


-- ================================================================
-- the ieee8021SrpReservationsPreloadTable
-- ================================================================
ieee8021SrpReservationsPreloadTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021SrpReservationsPreloadEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing Stream attribute
        registrations per port."
    REFERENCE   "12.22.7"
    ::= { ieee8021SrpReservations 2 }

ieee8021SrpReservationsPreloadEntry OBJECT-TYPE
    SYNTAX      Ieee8021SrpReservationsPreloadEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects containing Stream attribute
        registrations per port. Rows in the table are
        automatically created for Streams registered on any
        port of a Bridge."
    INDEX  { ieee8021SrpReservationsPreloadStreamId,
             ieee8021SrpReservationPreloadDirection,
             ieee8021BridgeBaseComponentId,
             ieee8021BridgeBasePort }
    ::= { ieee8021SrpReservationsPreloadTable 1 }

Ieee8021SrpReservationsPreloadEntry ::=
    SEQUENCE {
        ieee8021SrpReservationsPreloadStreamId
            IEEE8021SrpStreamIdValue,
        ieee8021SrpReservationPreloadDirection
            IEEE8021SrpReservationDirectionValue,
        ieee8021SrpReservationPreloadAccumulatedLatency
            Unsigned32
        }

ieee8021SrpReservationsPreloadStreamId OBJECT-TYPE
    SYNTAX      IEEE8021SrpStreamIdValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The 64-bit StreamID is used to match Talker
        registrations with their corresponding Listener
        registrations(35.2.4)."
    REFERENCE   "12.22.7, 35.2.2.8.2"
    ::= { ieee8021SrpReservationsPreloadEntry 1 }

ieee8021SrpReservationPreloadDirection OBJECT-TYPE
    SYNTAX      IEEE8021SrpReservationDirectionValue
    MAX-ACCESS  not-accessible~~read-write~~
    STATUS      current
    DESCRIPTION
        "The source of this Stream registration, either
        Talker or Listener"
    REFERENCE   "12.22.7, 35.2.1.1"
    ::= { ieee8021SrpReservationsPreloadEntry 2 }

ieee8021SrpReservationPreloadAccumulatedLatency OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "nano-seconds"
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The Accumulated Latency associated with the current
        registration.
```


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```
        For Talker registrations this represents the accumulated
        latency from the Talker to the ingress port of this
        Bridge.

        For Listener registrations this represents the accumulated
        latency to the ingress port of the neighbor Bridge or
        end stations. This include the latency of the media
        attached to this egress port."
    REFERENCE   "12.22.7, 35.2.2.8.6"
    ::= { ieee8021SrpReservationsPreloadEntry 3 }


-- ================================================================
-- IEEE8021 SRP MIB - Conformance Information
-- ================================================================

ieee8021SrpCompliances
    OBJECT IDENTIFIER ::= { ieee8021SrpConformance 1 }
ieee8021SrpGroups
    OBJECT IDENTIFIER ::= { ieee8021SrpConformance 2 }

-- ================================================================
-- units of conformance
-- ================================================================

-- ================================================================
-- the ieee8021SrpConfiguration group
-- ================================================================

ieee8021SrpConfigurationGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpBridgeBaseMsrpEnabledStatus,
        ieee8021SrpBridgeBaseMsrpTalkerPruning,
        ieee8021SrpBridgeBaseMsrpMaxFanInPorts,
        ieee8021SrpBridgeBaseMsrpLatencyMaxFrameSize,
        ieee8021SrpBridgeBaseMsrpTalkerVlanPruning,
        ieee8021SrpBridgeBaseMsrpMaxSRClasses,
        ieee8021SrpBridgePortMsrpEnabledStatus,
        ieee8021SrpBridgePortMsrpFailedRegistrations,
        ieee8021SrpBridgePortMsrpLastPduOrigin,
        ieee8021SrpBridgePortSrPvid,
        ieee8021SrpBridgePortMsrpTalkerPrunningPerPort
    }
    STATUS      current
    DESCRIPTION
        "Objects that define configuration of SRP."
    ::= { ieee8021SrpGroups 1 }

-- ================================================================
-- the ieee8021SrpLatency group
-- ================================================================

ieee8021SrpLatencyGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpPortTcLatency
    }
    STATUS      current
    DESCRIPTION
        "Objects that define latency for SRP."
    ::= { ieee8021SrpGroups 2 }

-- ================================================================
-- the ieee8021SrpStreams group
-- ================================================================

ieee8021SrpStreamsGroup OBJECT-GROUP
    OBJECTS {
        -- ieee8021SrpStreamId,
        ieee8021SrpStreamDestinationAddress,
        ieee8021SrpStreamVlanId,
        ieee8021SrpStreamTspecMaxFrameSize,
```


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```
        ieee8021SrpStreamTspecMaxIntervalFrames,
        ieee8021SrpStreamDataFramePriority,
        ieee8021SrpStreamRank
    }
    STATUS      current
    DESCRIPTION
        "Objects that define Streams for SRP."
    ::= { ieee8021SrpGroups 3 }

-- ============================================================
-- the ieee8021SrpReservations group
-- ============================================================

ieee8021SrpReservationsGroup OBJECT-GROUP
    OBJECTS {
        -- ieee8021SrpReservationStreamId,
        -- ieee8021SrpReservationDirection,
        ieee8021SrpReservationDeclarationType,
        ieee8021SrpReservationAccumulatedLatency,
        ieee8021SrpReservationFailureSystemId,
        ieee8021SrpReservationFailureCode,
        ieee8021SrpReservationDroppedStreamFrames,
        ieee8021SrpReservationStreamAge
    }
    STATUS      current
    DESCRIPTION
        "Objects that define Stream Reservations for SRP."
    ::= { ieee8021SrpGroups 4 }

-- ============================================================
-- the ieee8021SrpConfigurationPruning group
-- ============================================================

ieee8021SrpConfigurationPruningGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpBridgeBaseMsrpTalkerVlanPruning,
        ieee8021SrpBridgePortMsrpTalkerPrunningPerPort
    }
    STATUS      current
    DESCRIPTION
        "Objects that allow configuration of pruning behavior
        for SRP."
    ::= { ieee8021SrpGroups 5 }

-- ============================================================
-- the ieee8021SrpMonitoringSRclasses group
-- ============================================================

ieee8021SrpMonitoringSRclassesGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpBridgeBaseMsrpMaxSRClasses
    }
    STATUS      current
    DESCRIPTION
        "Objects that provides information on the maximum number
        of SR classes supported on the Bridge."
    ::= { ieee8021SrpGroups 6 }

-- ============================================================
-- the ieee8021SrpStreamsPreload group
-- ============================================================

ieee8021SrpStreamsPreloadGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpStreamPreloadId,
        ieee8021SrpStreamPreloadDestinationAddress,
        ieee8021SrpStreamPreloadVlanId,
        ieee8021SrpStreamPreloadTspecMaxFrameSize,
        ieee8021SrpStreamPreloadTspecMaxIntervalFrames,
        ieee8021SrpStreamPreloadDataFramePriority,
        ieee8021SrpStreamPreloadRank
    }
```


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```
    STATUS      current
    DESCRIPTION
        "Objects that allow to preload parameters for each
        StreamId on Bridge Ports as the Bridge initializes."
    ::= { ieee8021SrpGroups 7 }

-- ================================================================
-- the ieee8021SrpReservationsPreload group
-- ================================================================

ieee8021SrpReservationsPreloadGroup OBJECT-GROUP
    OBJECTS {
        ieee8021SrpReservationsPreloadStreamId,
        ieee8021SrpReservationPreloadDirection,
        ieee8021SrpReservationPreloadAccumulatedLatency
    }
    STATUS      current
    DESCRIPTION
        "Objects that allow to initialize Streams within each
        Bridge as it powers up, to preload the Stream
        registrations that will later be provided by operation
        of SRP."
    ::= { ieee8021SrpGroups 8 }

-- ================================================================
-- compliance statements
-- ================================================================

ieee8021SrpCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
        "The compliance statement for devices supporting
        Stream Reservation Protocol.

        Support of the objects defined in the IEEE8021-SRP MIB
        also requires support of the IEEE8021-BRIDGE-MIB; the
        provisions of 17.3.2 apply to implementations claiming
        support of the IEEE8021-SRP MIB."

    MODULE -- this module
        MANDATORY-GROUPS {
            ieee8021SrpConfigurationGroup,
            ieee8021SrpLatencyGroup,
            ieee8021SrpStreamsGroup,
            ieee8021SrpReservationsGroup
        }

    GROUP   ieee8021SrpConfigurationPruningGroup
    DESCRIPTION
        "Implementation of this group is optional. Implementation
        will allow configuration of pruning behavior for SRP."

    GROUP   ieee8021SrpMonitoringSRclassesGroup
    DESCRIPTION
        "Implementation of this group is optional. Implementation
        will allow configuration of pruning behavior for SRP."

    GROUP   ieee8021SrpStreamsPreloadGroup
    DESCRIPTION
        "Implementation of this group is optional. Implementation
        will allow to preload parameters for each StreamId on
        Bridge Ports as the Bridge initializes."

    GROUP   ieee8021SrpReservationsPreloadGroup
    DESCRIPTION
        "Implementation of this group is optional. Implementation
        will allow to initialize Streams within each Bridge as it
        powers up, to preload the Stream registrations that will
        later be provided by operation of SRP."

    ::= { ieee8021SrpCompliances 1 }
```


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```
END
```


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17.7.22 Definitions for the IEEE8021-ST-MIB module

Change 17.7.22 as follows:

```
IEEE8021-ST-MIB DEFINITIONS ::= BEGIN

-- ============================================================
-- MIB for support of the Scheduled Traffic Enhancements
-- for IEEE 802.1Q Bridges.
-- ============================================================


IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Unsigned32,
    Counter64
        FROM SNMPv2-SMI
    TEXTUAL-CONVENTION,
    TruthValue
        FROM SNMPv2-TC
    MODULE-COMPLIANCE,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    ieee802dot1mibs
        FROM IEEE8021-TC-MIB
    ieee8021BridgeBaseComponentId,
    ieee8021BridgePort
        FROM IEEE8021-BRIDGE-MIB
    ;

ieee8021STMib MODULE-IDENTITY
    LAST-UPDATED "202211080000Z" -- November 8, 2022"202309260000Z" -- September 26, 2023
    ORGANIZATION "IEEE 802.1 Working Group"
    CONTACT-INFO
        "  WG-URL: http://www.ieee802.org/1/
         WG-EMail: stds-802-1-l@ieee.org
          Contact: IEEE 802.1 Working Group Chair
           Postal: C/O IEEE 802.1 Working Group
                   IEEE Standards Association
                   445 Hoes Lane
                   Piscataway, NJ 08854
                   USA
           E-mail: stds-802-1-chairs@ieee.org"
    DESCRIPTION
        "The Bridge MIB module for managing devices that support
        the Scheduled Traffic Enhancements
        for IEEE 802.1Q Bridges.

        Unless otherwise indicated, the references in this MIB
        module are to IEEE Std 802.1Q-2022 as amended by
        IEEE Std 802.1Qcz and IEEE Std 802.1Qcw.

        Copyright (C) IEEE (20222023).
        This version of this MIB module is part of IEEE Std 802.1Q;
        see that standard for full legal notices."

    REVISION "202309260000Z" -- September 26, 2023
    DESCRIPTION
            "Update to include SupportedCycleMax and
            SupportedIntervalMax parameters.
            Published as part of IEEE Std 802.1Qcw-2023."

    REVISION "202211080000Z" -- November 8, 2022
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2022.
            Cross references and contact information updated."

    REVISION "201807010000Z" -- July 1, 2018
    DESCRIPTION
```


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```
            "Published as part of IEEE Std 802.1Q 2018 revision.
            Cross references updated and corrected."

    REVISION "201608150000Z" -- August 15, 2016
    DESCRIPTION
        "Revised to include Set-And-Hold-MAC and
        Set-And-Release-MAC in the description of
        ieee8021STAdminControlList and
        ieee8021STOperControlList.
        Published as part of IEEE Std 802.1Qbu."

REVISION "201602190000Z" -- February 19, 2016
    DESCRIPTION
            "Initial version published as part of IEEE Std 802.1Qbv."

       ::= { ieee802dot1mibs 30 }

-- ================================================================
-- Textual Conventions
-- ================================================================

IEEE8021STTrafficClassValue ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS      current
    DESCRIPTION
        "A traffic class value.
        This is the numerical value associated with a traffic
        class in a Bridge. Larger values are associated with
        higher priority traffic classes."
    REFERENCE   "12.29.1"
    SYNTAX      Unsigned32 (0..7)

IEEE8021STPTPtimeValue ::= TEXTUAL-CONVENTION
    STATUS      current
    DESCRIPTION
        "A PTPtime value, represented as a 48-bit unsigned integer
        number of seconds and a 32-bit unsigned integer number of
        nanoseconds.
        The first 6 octets represent the number of seconds: the
        first octet is the most significant
        octet of the 48-bit seconds value and the sixth octet
        is the least significant octet of the seconds value.
        The remaining octets, 7 through 10,  represent the
        number of nanoseconds: the seventh octet
        is the most significant octet of the 32-bit nanoseconds
        value and the tenth octet is the
        least significant octet of the nanoseconds value."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    SYNTAX      OCTET STRING (SIZE(10))


-- ================================================================
-- subtrees in the ST MIB
-- ================================================================

ieee8021STNotifications
    OBJECT IDENTIFIER ::= { ieee8021STMib 0 }

ieee8021STObjects
    OBJECT IDENTIFIER ::= { ieee8021STMib 1 }

ieee8021STConformance
    OBJECT IDENTIFIER ::= { ieee8021STMib 2 }

ieee8021STMaxSDUSubtree
    OBJECT IDENTIFIER ::= { ieee8021STObjects 1 }

ieee8021STParameters
    OBJECT IDENTIFIER ::= { ieee8021STObjects 2 }

-- ================================================================
-- The ieee8021STMaxSDUSubtree subtree
```


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```
-- This subtree defines the objects necessary for the management
-- of the max SDU size parameters for each traffic class on a Port.
-- ============================================================

-- ============================================================
-- the ieee8021STMaxSDUTable
-- ============================================================

ieee8021STMaxSDUTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021STMaxSDUEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing a set of max SDU
        parameters, one for each traffic class.
        All writable objects in this table must be
        persistent over power up restart/reboot."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STMaxSDUSubtree 1 }

ieee8021STMaxSDUEntry OBJECT-TYPE
    SYNTAX      Ieee8021STMaxSDUEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects containing Max SDU size
        for each traffic class supported by the Port."
    INDEX  { ieee8021BridgeBaseComponentId,
             ieee8021BridgeBasePort,
             ieee8021STTrafficClass  }
    ::= { ieee8021STMaxSDUTable 1 }

Ieee8021STMaxSDUEntry ::=
    SEQUENCE {
        ieee8021STTrafficClass
            IEEE8021STTrafficClassValue,
        ieee8021STMaxSDU
            Unsigned32,
        ieee8021TransmissionOverrun
            Counter64
        }

ieee8021STTrafficClass OBJECT-TYPE
    SYNTAX      IEEE8021STTrafficClassValue
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The traffic class number associated with the row of
        the table.

        A row in this table is created for each traffic class
        that is supported by the Port"
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STMaxSDUEntry 1 }


ieee8021STMaxSDU OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "octets"
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The value of the MaxSDU parameter for the traffic class.
        This value is represented as an unsigned integer. A value
        of 0 is interpreted as the max SDU size supported by
        the underlying MAC.

        The default value of the MaxSDU parameter is 0.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
```


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```
    DEFVAL { 0 }
    ::= { ieee8021STMaxSDUEntry 2}


ieee8021TransmissionOverrun OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A counter of transmission overrun events, where
        a PDU is still being transmitted by a MAC at the
        time when the transmission gate for the queue closed."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1, 12.29.1.1.2"
    DEFVAL { 0 }
    ::= { ieee8021STMaxSDUEntry 3}


-- ================================================================
-- The ieee8021STParameters subtree
-- This subtree defines the objects necessary for the management
-- of the traffic scheduling mechanism for IEEE Std 802.1Q.
-- ================================================================

-- ================================================================
-- the ieee8021STParametersTable
-- ================================================================

ieee8021STParametersTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021STParametersEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table that contains the per-port manageable parameters for
        traffic scheduling.

        For a given Port, a row in the table exists.

        All writable objects in this table must be
        persistent over power up restart/reboot."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParameters 1 }

ieee8021STParametersEntry OBJECT-TYPE
    SYNTAX      Ieee8021STParametersEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects that contains the manageable parameters for
        traffic scheduling for a port."
    INDEX  { ieee8021BridgeBaseComponentId,
             ieee8021BridgeBasePort
           }
    ::= { ieee8021STParametersTable 1 }

Ieee8021STParametersEntry ::=
    SEQUENCE {
        ieee8021STGateEnabled
            TruthValue,
        ieee8021STAdminGateStates
            OCTET STRING,
        ieee8021STOperGateStates
            OCTET STRING,
        ieee8021STAdminControlListLength
            Unsigned32,
        ieee8021STOperControlListLength
            Unsigned32,
        ieee8021STAdminControlList
            OCTET STRING,
        ieee8021STOperControlList
            OCTET STRING,
        ieee8021STAdminCycleTimeNumerator
            Unsigned32,
```


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```
        ieee8021STAdminCycleTimeDenominator
            Unsigned32,
        ieee8021STOperCycleTimeNumerator
            Unsigned32,
        ieee8021STOperCycleTimeDenominator
            Unsigned32,
        ieee8021STAdminCycleTimeExtension
            Unsigned32,
        ieee8021STOperCycleTimeExtension
            Unsigned32,
        ieee8021STAdminBaseTime
            IEEE8021STPTPtimeValue,
        ieee8021STOperBaseTime
            IEEE8021STPTPtimeValue,
        ieee8021STConfigChange
            TruthValue,
        ieee8021STConfigChangeTime
            IEEE8021STPTPtimeValue,
        ieee8021STTickGranularity
            Unsigned32,
        ieee8021STCurrentTime
            IEEE8021STPTPtimeValue,
        ieee8021STConfigPending
            TruthValue,
        ieee8021STConfigChangeError
            Counter64,
        ieee8021STSupportedListMax
            Unsigned32,
        ieee8021STSupportedCycleMaxNumerator
            Unsigned32,
        ieee8021STSupportedCycleMaxDenominator
            Unsigned32,
        ieee8021STSupportedIntervalMax
            Unsigned32
            }

ieee8021STGateEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The GateEnabled parameter determines whether traffic scheduling
        is active (true) or inactive (false).

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    DEFVAL { false }
    ::= { ieee8021STParametersEntry 1 }

ieee8021STAdminGateStates OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(1))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The administrative value of the GateStates parameter for the Port.
        The bits of the octet represent the gate states for the
        corresponding traffic classes; the MS bit corresponds to traffic class 7,
        the LS bit to traffic class 0. A bit value of 0 indicates closed; a
        bit value of 1 indicates open.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 2 }

ieee8021STOperGateStates OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(1))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The operational value of the GateStates parameter for the Port.
```


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```
        The bits of the octet represent the gate states for the
        corresponding traffic classes; the MS bit corresponds to traffic class 7,
        the LS bit to traffic class 0. A bit value of 0 indicates closed; a
        bit value of 1 indicates open."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 3 }

ieee8021STAdminControlListLength OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The administrative value of the ListMax parameter for the Port.
        The integer value indicates the number of entries (TLVs) in the
        AdminControlList.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 4 }

ieee8021STOperControlListLength OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The operational value of the ListMax parameter for the Port.
        The integer value indicates the number of entries (TLVs) in the
        OperControlList."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 5 }

ieee8021STAdminControlList OBJECT-TYPE
    SYNTAX      OCTET STRING
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The administrative value of the ControlList parameter for the Port.
        The octet string value represents the contents of the control list as
        an ordered list of entries, each encoded as a TLV, as follows.
        The first octet  of each TLV is interpreted as an
        unsigned integer representing a gate operation name:
            0: SetGateStates
            1: Set-And-Hold-MAC
            2: Set-And-Release-MAC
            3-255: Reserved for future gate operations

        The second octet of the TLV is the length field,
        interpreted as an unsigned integer, indicating the number of
        octets of the value that follows the length. A length of
        zero indicates that there is no value
        (i.e., the gate operation has no parameters).

        The third through (3 + length -1)th octets encode the
        parameters of the gate operation, in the order that they
        appear in the definition of the operation
        in Table 8-6. Two parameter types are currently defined:

        - GateState:
            A GateState parameter is encoded in a single octet.
            The bits of the octet represent the gate states for the
            corresponding traffic classes; the MS bit corresponds
            to traffic class 7,
            the LS bit to traffic class 0. A bit value of 0 indicates
            closed; a bit value of 1 indicates open.

        - TimeInterval:
            A TimeInterval is encoded in 4 octets as a 32-bit
            unsigned integer, representing a number of nanoseconds.
            The first octet encodes the most significant 8 bits of the
            integer, and the fourth octet encodes the least
            significant 8 bits.
```


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```
            The value of this object MUST be retained across
            reinitializations of the management system."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 6 }

    ieee8021STOperControlList OBJECT-TYPE
        SYNTAX      OCTET STRING
        MAX-ACCESS  read-only
        STATUS      current
        DESCRIPTION
            "The operational value of the ListMax parameter for the Port.
            The octet string value represents the contents of the control list as
            an ordered list of TLVs, as follows.
            The first octet  of each TLV is interpreted as a gate operation name:
                0: SetGateStates
                1: Set-And-Hold-MAC
                2: Set-And-Release-MAC
                3-255: Reserved for future gate operations

            The second octet of the TLV is the length field,
            interpreted as an unsigned integer,
            indicating the number of octets of the value that follows
            the length. A length of zero indicates that there is no value
            (i.e., the gate operation has no parameters).

            The third through (3 + length -1)th octets encode the
            parameters of the gate operation, in the order that they
            appear in the definition of the operation
            in Table 8-6. Two parameter types are currently defined:

            - GateState:
                A GateState parameter is encoded in a single octet.
                The bits of the octet represent the gate states for the
                corresponding traffic classes; the MS bit corresponds to
                traffic class 7, the LS bit to traffic class 0.
                A bit value of 0 indicates closed; a
                bit value of 1 indicates open.

            - TimeInterval:
                A TimeInterval is encoded in 4 octets as a 32-bit
                unsigned integer, representing
                a number of nanoseconds. The first octet encodes the
                most significant 8 bits of the integer, and the fourth
                octet encodes the least significant 8 bits."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 7 }

    ieee8021STAdminCycleTimeNumerator OBJECT-TYPE
        SYNTAX      Unsigned32
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The administrative value of the numerator of the CycleTime
            parameter for the Port.
            The numerator and denominator together represent the cycle time as
            a rational number of seconds.

            The value of this object MUST be retained across
            reinitializations of the management system."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 8 }

    ieee8021STAdminCycleTimeDenominator OBJECT-TYPE
        SYNTAX      Unsigned32
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The administrative value of the denominator of the
            CycleTime parameter for the Port.
            The numerator and denominator together represent the cycle time as
            a rational number of seconds.
```


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```
            The value of this object MUST be retained across
            reinitializations of the management system."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 9 }

    ieee8021STOperCycleTimeNumerator OBJECT-TYPE
        SYNTAX      Unsigned32
        MAX-ACCESS  read-only
        STATUS      current
        DESCRIPTION
            "The operational value of the numerator of the
            CycleTime parameter for the Port.
            The numerator and denominator together represent the cycle
            time as a rational number of seconds."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 10 }

    ieee8021STOperCycleTimeDenominator OBJECT-TYPE
        SYNTAX      Unsigned32
        MAX-ACCESS  read-only
        STATUS      current
        DESCRIPTION
            "The operational value of the denominator of the
            CycleTime parameter for the Port.
            The numerator and denominator together represent the
            cycle time as a rational number of seconds."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 11 }

    ieee8021STAdminCycleTimeExtension OBJECT-TYPE
        SYNTAX      Unsigned32
        UNITS       "nanoseconds"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The administrative value of the CycleTimeExtension
            parameter for the Port.
            The value is an unsigned integer number of nanoseconds.

            The value of this object MUST be retained across
            reinitializations of the management system."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 12 }

    ieee8021STOperCycleTimeExtension OBJECT-TYPE
        SYNTAX      Unsigned32
        UNITS       "nanoseconds"
        MAX-ACCESS  read-only
        STATUS      current
        DESCRIPTION
            "The operational value of the CycleTimeExtension parameter for the Port.
            The value is an unsigned integer number of nanoseconds."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 13 }

    ieee8021STAdminBaseTime OBJECT-TYPE
        SYNTAX      IEEE8021STPTPtimeValue
        UNITS       "PTP time"
        MAX-ACCESS  read-write
        STATUS      current
        DESCRIPTION
            "The administrative value of the BaseTime parameter for the Port.
            The value is a representation of a PTPtime value,
            consisting of a 48-bit integer
            number of seconds and a 32-bit integer number of nanoseconds.

            The value of this object MUST be retained across
            reinitializations of the management system."
        REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
        ::= { ieee8021STParametersEntry 14 }
```


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```
ieee8021STOperBaseTime OBJECT-TYPE
    SYNTAX      IEEE8021STPTPtimeValue
    UNITS       "PTP time"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The ~~operationsl~~ operational value of the BaseTime parameter for the Port.
        The value is a representation of a PTPtime value,
        consisting of a 48-bit integer
        number of seconds and a 32-bit integer number of nanoseconds."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 15 }

ieee8021STConfigChange OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The ConfigChange parameter signals the start of a
        configuration change
        when it is set to TRUE. This should only be done
        when the various administrative parameters
        are all set to appropriate values."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 16 }

ieee8021STConfigChangeTime OBJECT-TYPE
    SYNTAX      IEEE8021STPTPtimeValue
    UNITS       "PTP time"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The PTPtime at which the next config change is scheduled to occur.
        The value is a representation of a PTPtime value,
        consisting of a 48-bit integer
        number of seconds and a 32-bit integer number of nanoseconds.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 17 }

    ieee8021STTickGranularity OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The granularity of the cycle time clock, represented as an
        unsigned number of tenths of nanoseconds.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 18 }

 ieee8021STCurrentTime OBJECT-TYPE
    SYNTAX      IEEE8021STPTPtimeValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current time, in PTPtime, as maintained by the local system.
        The value is a representation of a PTPtime value,
        consisting of a 48-bit integer
        number of seconds and a 32-bit integer number of nanoseconds."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 19 }

 ieee8021STConfigPending OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
```


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```
        "The value of the ConfigPending state machine variable.
        The value is TRUE if a configuration change is in progress
        but has not yet completed."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.29.1"
    ::= { ieee8021STParametersEntry 20 }

 ieee8021STConfigChangeError OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A counter of the number of times that a re-configuration
        of the traffic schedule has been requested with the old
        schedule still running and the requested base time was
        in the past."
    REFERENCE   "8.6.8.4, 8.6.9.3, 12.29.1"
    ::= { ieee8021STParametersEntry 21 }

ieee8021STSupportedListMax OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The maximum value supported by this Port of the
        AdminControlListLength and OperControlListLength
        parameters."
    REFERENCE   "12.29.1.5"
    ::= { ieee8021STParametersEntry 22 }

ieee8021STSupportedCycleMaxNumerator OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The numerator of the SupportedCycleMax parameter for
    the Port. The numerator and denominator together
    represent the maximum value supported by this Port of
    the AdminCycleTime and OperCycleTime parameters"
    REFERENCE   "12.29.1.6"
    ::= { ieee8021STParametersEntry 23 }

ieee8021STSupportedCycleMaxDenominator OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The denominator of the SupportedCycleMax parameter for
    the Port. The numerator and denominator together
    represent the maximum value supported by this Port of
    the AdminCycleTime and OperCycleTime parameters"
    REFERENCE   "12.29.1.6"
    ::= { ieee8021STParametersEntry 24 }

ieee8021STSupportedIntervalMax OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The maximum value supported by this Port of the
    TimeIntervalValue parameter."
    REFERENCE   "12.29.1.7"
    ::= { ieee8021STParametersEntry 25 }

-- ================================================================
-- IEEE8021 STFQTSS MIB - Conformance Information
-- ================================================================

ieee8021STCompliances
    OBJECT IDENTIFIER ::= { ieee8021STConformance 1 }
ieee8021STGroups
    OBJECT IDENTIFIER ::= { ieee8021STConformance 2 }
```


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```
-- ================================================================
-- units of conformance
-- ================================================================

-- ================================================================
-- the ieee8021STObjectsGroup group
-- ================================================================

ieee8021STObjectsGroup OBJECT-GROUP
    OBJECTS {
        ieee8021STMaxSDU,
        ieee8021TransmissionOverrun,
        ieee8021STGateEnabled,
        ieee8021STAdminGateStates,
        ieee8021STOperGateStates,
        ieee8021STAdminControlListLength,
        ieee8021STOperControlListLength,
        ieee8021STAdminControlList,
        ieee8021STOperControlList,
        ieee8021STAdminCycleTimeNumerator,
        ieee8021STAdminCycleTimeDenominator,
        ieee8021STOperCycleTimeNumerator,
        ieee8021STOperCycleTimeDenominator,
        ieee8021STAdminCycleTimeExtension,
        ieee8021STOperCycleTimeExtension,
        ieee8021STAdminBaseTime,
        ieee8021STOperBaseTime,
        ieee8021STConfigChange,
        ieee8021STConfigChangeTime,
        ieee8021STTickGranularity,
        ieee8021STCurrentTime,
        ieee8021STConfigPending,
        ieee8021STConfigChangeError,
        ieee8021STSupportedListMax,
        ieee8021STSupportedCycleMaxNumerator,
        ieee8021STSupportedCycleMaxDenominator,
        ieee8021STSupportedIntervalMax
    }
    STATUS      current
    DESCRIPTION
        "Objects that allow management of scheduled traffic."
    ::= { ieee8021STGroups 1 }


-- ================================================================
-- compliance statements
-- ================================================================

ieee8021STCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
        "The compliance statement for devices supporting
        scheduled traffic.

        Support of the objects defined in this MIB module
        also requires support of the IEEE8021-BRIDGE-MIB; the
        provisions of 17.3.2 apply to implementations claiming
        support of this MIB. "

    MODULE -- this module
        MANDATORY-GROUPS {
            ieee8021STObjectsGroup
        }

    ::= { ieee8021STCompliances 1 }

END
```


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17.7.24 Definitions for the IEEE8021-PSFP-MIB module

Change 17.7.24 as follows:

```
IEEE8021-PSFP-MIB DEFINITIONS ::= BEGIN

-- ============================================================
-- MIB for support of the Per-Stream Filtering and Policing
-- Enhancements for IEEE 802.1Q Bridges.
-- ============================================================

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Unsigned32,
    Integer32,
    Counter64
        FROM SNMPv2-SMI
    TruthValue, RowStatus
        FROM SNMPv2-TC
    MODULE-COMPLIANCE,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    ieee802dot1mibs
        FROM IEEE8021-TC-MIB
    ieee8021BridgeBaseComponentId
        FROM IEEE8021-BRIDGE-MIB
    IEEE8021STPTPtimeValue
        FROM IEEE8021-ST-MIB
    ;

ieee8021PSFPMib MODULE-IDENTITY
    LAST-UPDATED "202201130000Z" -- January 13, 2022"202309260000Z" -- September 26, 2023
    ORGANIZATION "IEEE 802.1 Working Group"
    CONTACT-INFO
        "  WG-URL: http://www.ieee802.org/1/
         WG-EMail: stds-802-1-l@ieee.org
          Contact: IEEE 802.1 Working Group Chair
           Postal: C/O IEEE 802.1 Working Group
                   IEEE Standards Association
                   445 Hoes Lane
                   Piscataway, NJ 08854
                   USA
           E-mail: stds-802-1-chairs@ieee.org"
    DESCRIPTION
        "The Bridge MIB module for managing devices that support
        the Per-Stream Filtering and Policing enhancements
        for IEEE 802.1Q Bridges.

        Unless otherwise indicated, the references in this MIB
        module are to IEEE Std 802.1Q-2022.

        Copyright (C) IEEE (20222023).
        This version of this MIB module is part of IEEE Std 802.1Q;
        see that standard for full legal notices."

    REVISION "202309260000Z" -- September 26, 2023
    DESCRIPTION
            "Update to include SupportedCycleMax and
            SupportedIntervalMax parameters.
            Published as part of IEEE Std 802.1Qcw-2023."

    REVISION "202201130000Z" -- January 13, 2022
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2022.
            Cross references and contact information updated."

    REVISION "202011060000Z" -- November 6, 2020
    DESCRIPTION
            "Published as part of IEEE Std 802.1Qcr-2020.
```


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```
            Cross references and contact information updated."

    REVISION "201807010000Z" -- July 1, 2018
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q 2018 revision.
            Cross references updated and corrected."

    REVISION "201709080000Z" -- September 29, 2017
    DESCRIPTION
            "Initial version published as part of IEEE Std 802.1Qci."

       ::= { ieee802dot1mibs 31 }


-- ================================================================
-- subtrees in the PSFP MIB
-- ================================================================

ieee8021PSFPNotifications
    OBJECT IDENTIFIER ::= { ieee8021PSFPMib 0 }

ieee8021PSFPObjects
    OBJECT IDENTIFIER ::= { ieee8021PSFPMib 1 }

ieee8021PSFPConformance
    OBJECT IDENTIFIER ::= { ieee8021PSFPMib 2 }

ieee8021PSFPStreamFilterParameters
    OBJECT IDENTIFIER ::= { ieee8021PSFPObjects 1 }

ieee8021PSFPStreamGateParameters
    OBJECT IDENTIFIER ::= { ieee8021PSFPObjects 2 }

ieee8021PSFPFlowMeterParameters
    OBJECT IDENTIFIER ::= { ieee8021PSFPObjects 3 }

ieee8021PSFPStreamParameters
    OBJECT IDENTIFIER ::= { ieee8021PSFPObjects 4 }


-- ================================================================
-- The ieee8021PSFPStreamFilterParameters subtree
-- This subtree defines the objects necessary for the management
-- of the stream filters for IEEE Std 802.1Q.
-- ================================================================

-- ================================================================
-- the ieee8021PSFPStreamFilterTable
-- ================================================================

ieee8021PSFPStreamFilterTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021PSFPStreamFilterEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table that contains the per-filter instance
        manageable parameters for stream filters.

        A row in the table exists for each stream filter instance.
        associated with a Bridge component.

        All writable objects in this table must be
        persistent over power up restart/reboot."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterParameters 1 }

ieee8021PSFPStreamFilterEntry OBJECT-TYPE
    SYNTAX      Ieee8021PSFPStreamFilterEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects that contains the manageable parameters for
```


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```
        stream filters for a Bridge component."
    INDEX  { ieee8021BridgeBaseComponentId,
             ieee8021PSFPStreamFilterInstance
           }
    ::= { ieee8021PSFPStreamFilterTable 1 }

Ieee8021PSFPStreamFilterEntry ::=
    SEQUENCE {
        ieee8021PSFPStreamFilterInstance
            Unsigned32,
        ieee8021PSFPStreamHandleSpec
            Integer32,
        ieee8021PSFPPrioritySpec
            Integer32,
        ieee8021PSFPStreamGateInstanceID
            Unsigned32,
        ieee8021PSFPFilterSpecificationList
            OCTET STRING,
        ieee8021PSFPMatchingFramesCount
            Counter64,
        ieee8021PSFPPassingFramesCount
            Counter64,
        ieee8021PSFPNotPassingFramesCount
            Counter64,
        ieee8021PSFPPassingSDUCount
            Counter64,
        ieee8021PSFPNotPassingSDUCount
            Counter64,
        ieee8021PSFPREDFramesCount
            Counter64,
        ieee8021PSFPStreamBlockedDueToOversizeFrameEnable
            TruthValue,
        ieee8021PSFPStreamBlockedDueToOversizeFrame
            TruthValue,
        ieee8021PSFPStreamFilterEntryRowStatus
            RowStatus
             }

ieee8021PSFPStreamFilterInstance OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The StreamFilterInstance parameter is an index into the
        StreamFilterTable.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 1}

ieee8021PSFPStreamHandleSpec OBJECT-TYPE
    SYNTAX      Integer32 (-1..2147483647)
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The StreamHandleSpec parameter contains a stream identifier
        specification value. A value of -1 denotes the wild card value;
        all positive values denote stream identifier values.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 2}

ieee8021PSFPPrioritySpec OBJECT-TYPE
    SYNTAX      Integer32 (-1..2147483647)
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The PrioritySpec parameter contains a priority
        specification value. A value of -1 denotes the wild card value;
```


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```
        zero or positive values denote priority values.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 3}

ieee8021PSFPStreamGateInstanceID OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The StreamGateInstance parameter contains the index of an
        entry in the Stream Gate Table.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 4}

ieee8021PSFPFilterSpecificationList OBJECT-TYPE
    SYNTAX      OCTET STRING
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The FilterSpecificationList parameter contains a list of
        filter specifications associated with this stream filter.

        The octet string value represents the contents of the list as
        an ordered list of entries, each encoded as a TLV, as follows.

        The first octet  of each TLV is interpreted as an
        unsigned integer representing a filter specification type:
            0: Maximum SDU Size.
            1: Flow meter instance identifier.
            2-255: Reserved for future filter specification types

        The second and third octets of the TLV are the length field,
        interpreted as an unsigned integer, indicating the number of
        octets of the value that follows the length. A length of
        zero indicates that there is no value
        (i.e., the filter specification has no parameters).

        The fourth through (4 + length -1)th octets encode the
        parameters of the filter specification, as defined for each
        filter specification type.

        - Maximum SDU Size:
            A single SDU size parameter is encoded in four octets, and
            is interpreted as an unsigned integer value.

        - Flow meter instance identifier:
            A single flow meter instance identifier is encoded in
            four octets, and is interpreted as an unsigned integer value.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 5}

ieee8021PSFPMatchingFramesCount OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The MatchingFramesCount counter counts received frames that
        match this stream filter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 6}

ieee8021PSFPPassingFramesCount OBJECT-TYPE
```


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```
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The PassingFramesCount counter counts received frames that
        pass the gate associated with this stream filter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 7}

ieee8021PSFPNotPassingFramesCount OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The NotPassingFramesCount counter counts received frames that
        do not pass the gate associated
        with this stream filter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 8}

ieee8021PSFPPassingSDUCount OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The  PassingSDUCount counter counts received frames that
        pass the maximum SDU size filter specification associated
        with this stream filter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 9}

ieee8021PSFPNotPassingSDUCount OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The  NotPassingSDUCount counter counts received frames that
        do not pass the maximum SDU size filter specification associated
        with this stream filter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 10}

ieee8021PSFPREDFramesCount OBJECT-TYPE
    SYNTAX      Counter64
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The REDFramesCount counter counts received
         frames that were discarded as a result of the
         operation of the flow meter.
        "
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    ::= { ieee8021PSFPStreamFilterEntry 11}

ieee8021PSFPStreamBlockedDueToOversizeFrameEnable OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The ieee8021PSFPStreamBlockedDueToOversizeFrameEnable object
        contains a Boolean value that indicates whether the
        StreamBlockedDueToOversizeFrame function is
        enabled (TRUE) or disabled (FALSE).

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    DEFVAL { false }
```


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```
    ::= { ieee8021PSFPStreamFilterEntry 12 }

ieee8021PSFPStreamBlockedDueToOversizeFrame OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The ieee8021PSFPStreamBlockedDueToOversizeFrame object
        contains a Boolean value that indicates whether, if the
        StreamBlockedDueToOversizeFrame function is
        enabled, all frames are to be discarded (TRUE)
        or not (FALSE).

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.3, 12.31.2"
    DEFVAL { false }
    ::= { ieee8021PSFPStreamFilterEntry 13 }

ieee8021PSFPStreamFilterEntryRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The status of the row.

         The writable columns in a row cannot be changed if the row
         is active. All columns MUST have a valid value before a row
         can be activated.
        "
    ::= { ieee8021PSFPStreamFilterEntry 14 }


-- ================================================================
-- The ieee8021PSFPStreamGateParameters subtree
-- This subtree defines the objects necessary for the management
-- of the stream gate scheduling mechanism for IEEE Std 802.1Q.
-- ================================================================

-- ================================================================
-- the ieee8021PSFPStreamGateTable
-- ================================================================

ieee8021PSFPStreamGateTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Ieee8021PSFPStreamGateEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table that contains the per-gate instance
        manageable parameters for stream gate scheduling.

        For a given Bridge component, a row in the table exists for
        each stream gate instance.

        All writable objects in this table must be
        persistent over power up restart/reboot."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    ::= { ieee8021PSFPStreamGateParameters 1 }

ieee8021PSFPStreamGateEntry OBJECT-TYPE
    SYNTAX      Ieee8021PSFPStreamGateEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A list of objects that contains the manageable parameters for
        stream gate scheduling for a Bridge component."
    INDEX  { ieee8021BridgeBaseComponentId,
             ieee8021PSFPStreamGateInstance
           }
    ::= { ieee8021PSFPStreamGateTable 1 }

Ieee8021PSFPStreamGateEntry ::=
```


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```
    SEQUENCE {
        ieee8021PSFPStreamGateInstance
            Unsigned32,
        ieee8021PSFPGateEnabled
            TruthValue,
        ieee8021PSFPAdminGateStates
            INTEGER,
        ieee8021PSFPOperGateStates
            INTEGER,
        ieee8021PSFPAdminControlListLength
            Unsigned32,
        ieee8021PSFPOperControlListLength
            Unsigned32,
        ieee8021PSFPAdminControlList
            OCTET STRING,
        ieee8021PSFPOperControlList
            OCTET STRING,
        ieee8021PSFPAdminCycleTimeNumerator
            Unsigned32,
        ieee8021PSFPAdminCycleTimeDenominator
            Unsigned32,
        ieee8021PSFPOperCycleTimeNumerator
            Unsigned32,
        ieee8021PSFPOperCycleTimeDenominator
            Unsigned32,
        ieee8021PSFPAdminCycleTimeExtension
            Unsigned32,
        ieee8021PSFPOperCycleTimeExtension
            Unsigned32,
        ieee8021PSFPAdminBaseTime
            IEEE8021STPTPtimeValue,
        ieee8021PSFPOperBaseTime
            IEEE8021STPTPtimeValue,
        ieee8021PSFPConfigChange
            TruthValue,
        ieee8021PSFPConfigChangeTime
            IEEE8021STPTPtimeValue,
        ieee8021PSFPTickGranularity
            Unsigned32,
        ieee8021PSFPCurrentTime
            IEEE8021STPTPtimeValue,
        ieee8021PSFPConfigPending
            TruthValue,
        ieee8021PSFPConfigChangeError
            Counter64,
        ieee8021PSFPAdminIPV
            Integer32,
        ieee8021PSFPOperIPV
            Integer32,
        ieee8021PSFPGateClosedDueToInvalidRxEnable
            TruthValue,
        ieee8021PSFPGateClosedDueToInvalidRx
            TruthValue,
        ieee8021PSFPGateClosedDueToOctetsExceededEnable
            TruthValue,
        ieee8021PSFPGateClosedDueToOctetsExceeded
            TruthValue,
ieee8021PSFPStreamGateEntryRowStatus
            RowStatus
            }

ieee8021PSFPStreamGateInstance OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The StreamGateInstance parameter is an index into the
        StreamGateTable.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.5.2.1, 8.6.5.4, 12.31.3"
```


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```
    ::= { ieee8021PSFPStreamGateEntry 1}

ieee8021PSFPGateEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The GateEnabled parameter determines whether the stream gate
        is active (true) or inactive (false).

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    DEFVAL { false }
    ::= { ieee8021PSFPStreamGateEntry 2}

ieee8021PSFPAdminGateStates OBJECT-TYPE
    SYNTAX      INTEGER { open(1), closed(2) }
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The administrative value of the GateStates parameter for the
        stream gate.
        The open value indicates that the gate is open,
        the closed value indicates that the gate is closed.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    ::= { ieee8021PSFPStreamGateEntry 3 }

ieee8021PSFPOperGateStates OBJECT-TYPE
    SYNTAX      INTEGER { open(1), closed(2) }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The operational value of the GateStates parameter for the
        stream gate.
        The open value indicates that the gate is open,
        the closed value indicates that the gate is closed.
"
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    ::= { ieee8021PSFPStreamGateEntry 4 }

ieee8021PSFPAdminControlListLength OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The administrative value of the ListMax parameter for the gate.
        The integer value indicates the number of entries (TLVs) in the
        AdminControlList.

        The value of this object MUST be retained across
        reinitializations of the management system."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    ::= { ieee8021PSFPStreamGateEntry 5 }

ieee8021PSFPOperControlListLength OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The operational value of the ListMax parameter for the gate.
        The integer value indicates the number of entries (TLVs) in the
        OperControlList."
    REFERENCE   "8.6.8.4, 8.6.9.4, 12.31.3"
    ::= { ieee8021PSFPStreamGateEntry 6 }

ieee8021PSFPAdminControlList OBJECT-TYPE
    SYNTAX      OCTET STRING
    MAX-ACCESS  read-create
```


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